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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/813,446	03/20/2001	Olav Solgaard	UC97-156-7	3284

7590

06/05/2002

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EXAMINER

LEE, JOHN D

ART UNIT PAPER NUMBER

2874

DATE MAILED: 06/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/813,446

Applicant(s)

Olav Solgaard et al. *AS*

Examiner

John D. Lee

Art Unit

2874



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on May 14, 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-94 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 59-94 is/are allowed.
- 6) ☒ Claim(s) 31-38, 44-52, and 58 is/are rejected.
- 7) ☒ Claim(s) 39-43 and 53-57 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 14 6) ☐ Other: _____

Applicant's communication after final rejection, filed on May 14, 2002, has been carefully studied by the Examiner. The previously applied double patenting rejection has been obviated by the Terminal Disclaimer, and that rejection is withdrawn. In view of the Information Disclosure Statement submitted by applicant on May 6, 2002, however, and the consequent relevance of one of the prior art documents cited therein, a new rejection is set forth below with respect to certain of the pending claims. **THE FINALITY OF THE PREVIOUS OFFICE ACTION IS HEREBY WITHDRAWN.** The present action is **not** made final.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 31-38, 44-52, and 58 are rejected under 35 U.S.C. § 102(e) as being clearly anticipated by U.S. Patent 5,504,575 to Stafford. Although directed to the spectrometer art, Stafford discloses an arrayed actuated mirror device which operates as an optical switch. See, for example, Figures 2, 4, and 5. The Stafford switch comprises a spatial light modulator (SLM), such as a deformable mirror array device (DMD). The DMD switches an optical beam from the input port (slit) to the output port (detector). The DMD operates in conjunction with a spectral dispersing prism so that it is possible to separate at least one wavelength component in the optical beam from at least one other wavelength component in the optical beam. The Stafford device thus reads directly on the invention set forth in these claims. Although there is only one input "port" and only one output "port" in the Stafford switch, applicant's claim language of "an input (output) port", "at least one input (output) port", or "any input (output) port" does not distinguish therefrom. Note that a collimating lens is used in Stafford to aid in positioning the optical beam onto the DMD. Note also

that the DMD can be a two-dimensional array (see paragraph bridging columns 3 and 4 of Stafford).

Claims 59-94 are allowed. Stafford does not disclose or suggest **both** an input array of actuated mirrors **and** an output array of actuated mirrors. All embodiments in Stafford employ only a single deformable mirror array device (DMD), and there would be no reason to use more than one DMD in Stafford.

Claims 39-43 and 53-57 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. As noted above, a collimating lens is used in Stafford to aid in positioning the optical beam onto the DMD, but no **imaging** means (e.g. an imaging lens) is disclosed or suggested for positioning the optical beam onto the DMD. Stafford also does not disclose or suggest any means for configuring a **specific** mirror in the DMD to receive an optical beam from a specific input port, and does not disclose or suggest any means for configuring a specific output port to receive an optical beam from a **specific** mirror in the DMD.

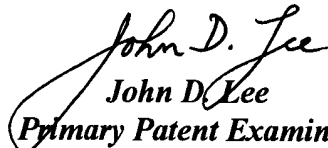
All of the prior art documents submitted by applicant in the Information Disclosure Statement filed on May 6, 2002, including the U.S. Patent to Stafford relied on in the rejection above, have been considered and made of record (note the attached copy of form PTO-1449). It is noted that the cited U.S. Patents to Bishop et al and Derickson et al are not available for use as references against the pending claims because of their effective filing dates.

Any inquiry concerning the merits of this communication should be directed to Examiner John D. Lee at telephone number (703) 308-4886. The Examiner's normal work schedule is Tuesday through Friday, 6:30 AM to 5:00 PM. Any inquiry of a general or clerical nature (i.e. a request for

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a missing form or paper, etc.) should be directed to the Technology Center 2800 receptionist at telephone number (703) 308-0956, to the technical support staff supervisor (Team 2) at telephone number (703) 308-3072, or to the Technology Center 2800 Customer Service Office at telephone number (703) 306-3329.


John D. Lee
Primary Patent Examiner
Group Art Unit 2874